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July 23, 2012

Ms. Lisa Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Mr. Dennis McLerran
Regional Administrator
EPA Region X
RA 140
1200 Sixth Avenue
Seattle, Washington 98101

Re: Docket # EPA-HQ-ORD-2012-0276
Public Comment Period for EPA's Draft "Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska"

Dear Administrator Jackson,

The Northwest Mining Association (NWMA) appreciates the opportunity to comment on the Draft Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska. We respectfully request that you disregard this assessment's findings. Site-specific evaluations of potential environmental impacts require a specific proposal and consideration of the federal and state statutory and regulatory hardrock mine programs that Congress, the States and the executive branch agencies have developed over the last 40 years to prevent and/or substantially mitigate environmental impacts.

EPA cannot possibly make a rational determination whether a hypothetical, mythical hard rock mine designed by EPA will have any rational correlation to a real world hardrock mine proposal without the benefit of input from hardrock mining professionals. EPA must use the processes for gathering facts, science and developing alternatives that have developed over the last 40 years pursuant to the federal National Environmental Policy Act (NEPA) and then evaluate the environmental protective measures considered by the federal and state permitting/approval authorities. These authorities have an impressive track record of protecting the environment from the impact of hardrock mines.

As is discussed below, since the advent of the current hardrock mine regulatory processes in the 1990's, there has never been an environmental problem at a hardrock mine permitted by the relevant federal or state agencies that required EPA to determine such hardrock mine site was "top priority among known response targets" for inclusion on the federal National Priorities List. Thus, it is arbitrary and capricious per se to abstractly assume than a *possible* mine that has yet to be proposed, has yet to be subject to factual and scientific evaluation, and has yet to be subject to environmental protective measures by the permitting/approval processes under currently

applicable federal and state hardrock mine regulation programs will have unacceptable impacts. Yet, that is exactly what the Bristol Bay Report purports to do. Therefore, NWMA strongly urges EPA to return to the rule of science and law and terminate further work on the current Bristol Bay Report.

**Who We Are**

NWMA is a 117 year old, 2,300 member, non-profit, non-partisan trade association based in Spokane, Washington. NWMA members reside in 43 states, including more than 80 in Alaska, and are actively involved in exploration and mining operations on public and private lands. Our diverse membership includes every facet of the mining industry including geology, exploration, mining, engineering, equipment manufacturing, environmental protection, reclamation, technical services, and sales of equipment and supplies. NWMA's broad membership represents a true cross-section of the American mining community from small miners and exploration geologists to both junior and large mining companies. More than 90% of our members are small businesses or work for small businesses. Most of our members are individual citizens.

**The Report is flawed and does not meet federal Data Quality Act or EPA data quality guidance**

EPA's Bristol Bay Watershed Assessment purports to rely on Clean Water Act Section 104 to undertake an assessment that might be used for a Section 404(c) veto of the Pebble Project (Although EPA claims that the Watershed Assessment and a possible §404(c) veto is directed at a hypothetical project, it is clear to everyone that the yet-to-be-filed Pebble Plan of Operations is the target). In a letter from EPA to the State of Alaska dated April 5, 2012, EPA says that the Assessment is not a regulatory action and that "it will not have any legal consequences." Even if EPA is accurate in its characterization of the Assessment's absence of legal effect, which is unlikely, the Assessment by EPA's own acknowledgement might potentially be used in a Section 404(c) veto of a project that has not been proposed.

The State of Alaska has challenged EPA's legal authority under Section 104 to undertake the Assessment. Whether or not EPA has the authority to undertake studies without regulatory or other legal consequences, it is clear that EPA cannot prejudice the statutory and regulatory processes for considering proposals if and when they are made. Under the National Environmental Policy Act (NEPA), what constitutes a "proposal" is well defined by the Statute, implementing regulations and guidance of many agencies, and the courts.

With respect to the evolving Pebble Project, all agree: No "proposal" has been made. If and when a proposal is made, EPA is unlikely to be a permitting agency for any Pebble Project as then proposed. Thus, EPA cannot use its dubious Clean Water Act Section 104 assessments to prejudice the process that the lead and cooperating agencies will then undertake.

A critical element of any "proposal" is limiting environmental impacts and incorporating mitigation. Until a proposal is made, it is impossible to determine how the NEPA process should

work. In some current instances, mining projects have so successfully limited impacts and incorporated enforceable mitigation that a "finding of no significant impact" was reached after completing an Environmental Assessment. In other instances, mining projects worked with the lead and cooperating agencies to complete an Environmental Impact Statement (EIS). In all instances, the agencies waited until a "proposal" existed. In the context of the evolving Pebble Project, no one now knows what the proposal will entail. EPA assumes that a Section 404(c) veto may be considered, but, at this point, there is no Section 404 permit application that might be forestalled by a veto.

Putting aside the accuracy of EPA's characterization of the Assessment as lacking regulatory or other legal consequences, the development of the Assessment and its wide dissemination, including attempts to make it appear the State of Alaska is cooperating, create serious prejudice against an evolving project that has not yet made a proposal subject to NEPA and other statutory analysis. EPA is using Section 104 for purposes that have nothing to do with understanding the watershed or assisting the government and public in undertaking informed decision making, which is NEPA's overriding objective.

**EPA's failure to consider the full panoply of federal and state programs developed by the Congress, the States and the relevant federal and state hardrock mine regulatory authorities to protect the environment when seeking to assess potential impacts of hardrock mines is shocking in view of the success the current regulatory programs have had in protecting the environmental since their inception in the 1990s.**

The evolution of federal and state regulation of hardrock mining and milling facilities[1] is a remarkable success story of environmental protection. The bottom line is that current hardrock mine regulation is demonstrably protective of the environment. This is well illustrated by analysis of the vintages of Hardrock Mines on the EPA National Priorities List of environmental cleanup sites.

EPA has prepared a subset of the National Priories List "mining sites" referred to by EPA as the Abandoned Mines List ("EPA AML").[2] The EPA AML is highly misleading if one seeks to use it as a whole to suggest the environmental risk created by newly approved hardrock mines because the EPA AML is composed entirely of facilities that: (1) are mineral processing facilities and inorganic chemical plants that are almost never associated with hardrock mining or hardrock mines permitted in the current era; and/or (2) pre-date modern regulation of hardrock mines.

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[1] For the purposes of this letter, "hardrock mine" includes any facility deemed to be a "mining" or "beneficiation" facility by the EPA. EPA has defined "mining and beneficiation" to include, generally, all metal mines, but the term also includes many non-metallic industrial mineral mines, such as phosphate rock, trona, fluorospar, and mica, as well as the mills required to upgrade any of the these ores. See generally 40 C.F.R. 261.4(b)(7)(2012). In common usage, EPA's "mining and beneficiation" is more typically referred to as "hardrock mining and milling" or just for the purposes of this letter sometimes "hardrock mine."

[2] See Table 1 attached hereto, based upon EPA's "Summary – Mining Sites on the National Priorities List," based upon EPA AML as of March 20, 2012.

When one eliminates the "red herring" inorganic chemical plants and mineral processing facilities, the EPA AML list of almost 100 sites is immediately reduced to about 53 mining and milling facilities that might be deemed to be "hardrock mines."

Of course, the above discussion does not address the nature of the regulatory protections, if any, that had been applied to these approximately 53 sites to protect the environment. In fact, most of these facilities were never subject to any regulatory limitations to protect the environment. EPA's 1985 assessment was that "EPA data on management methods at mining facilities indicate that only a small percentage of mines currently [1985] monitor their ground water, use run-on/run-off controls or liner, or employ leachate collection, detection, and removal systems."[3] Thus, as a practical matter, any discussion of the effectiveness of environmental predictions at facilities designed and approved prior to 1985 is meaningless. No one would suggest today that General Motors ("GM") should be prohibited from producing cars in 2012 because GM's 1965 Corvair was deemed to be "unsafe at any speed" by Ralph Nader.[4] GM did not meet 2012 regulatory standards in 1965 and neither did the hardrock mine industry, yet both the auto industry and the hardrock mining industry must continue to fulfill their role in the U.S. economy.

Hardrock mine regulation can be broadly classified into 3 major eras based upon the extent of applicable regulation or the lack thereof: (1) Pre-Regulatory Era (prior to 1970); (2) Transition Regulatory Era (1970 through 1990); and, (3) Regulated Hardrock Mine Era (Post-1990). The approximately 53 Mining and Milling sites on the NPL fall into the following temporal classifications:

| | |
|---|---|
| Pre-Regulatory Era (prior to 1970) | 47 |
| Transition Regulatory Era (1970 through 1990) | 6 |
| Regulated Hardrock Mine Era (post-1990) | 0 |

See Tables 2 and 3. Thus, by eliminating the mineral processing/inorganic chemical plants from the EPA's so-called "Mining Sites" list of 98 sites, the EPA list can be corrected to include only about 53 sites that are hardrock mining sites, if one includes such sites from **all** eras, including many historic facilities dating back to the 1800s. Obviously, and most importantly from the perspective of evaluating the success of hardrock mine regulation, **none** of the hardrock mines on the National Priorities List ("NPL") were approved after 1990.[5] However, this determination

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[3] EPA, "Report to Congress, Wastes from the Extraction and Beneficiation of Metallic Ores, Phosphate Rock, Asbestos, Overburden from Uranium Mining, and Oil Shale," December 31, 1985, p. ES-10.

[4] Nader, Ralph, Unsafe at any speed: The Designed in Dangers of the American Automobile, Grossman Publishers, 1965.

[5] It is important to note that eliminating mineral processing and inorganic chemical plant sites almost certainly does not affect the number of regulated facilities from EPA's so-called Mining Site List that would be deemed to be located on the NPL since 1990. In fact, there have been very few new mineral processing facilities constructed since 1990, other than updating of existing facilities (e.g., Rio Tinto's Utah Copper Division) or use of small "mineral processing" facilities such as the dore furnaces commonly located at gold mines. Very few, if any, new large regional mineral processing facilities have been constructed since 1990. However, one cannot have an intelligent

is not merely the opinion of the Northwest Mining Association; it is validated by data supplied by the USFS and the BLM with regard to federal land hardrock mines, as discussed immediately below.

By letter dated, March 8, 2011, U.S. Senator Murkowski's (R-AK) asked the Forest Service and the BLM how many mine plans of operations ("MPOs") the agencies had approved since 1990 and asked how many of those approved MPO facilities subsequently were listed by EPA on the NPL? The Forest Service responded to Senator Murkowski by stating that they had approved 2,685 MPOs since 1990 and stated that ***none*** of these required EPA to place them on the NPL.[6] The BLM responded to Senator Murkowski by stating that they had approved 659 MPOs after 1990 and stated that ***none*** of these required EPA to place them on the NPL.[7] Thus, while federal land approvals do not encompass *all* hardrock mines, this independently verifies the CERCLA National Priorities List analysis above. None of the hardrock mines approved for operation on federal land since 1990 have been deemed by the EPA to be among the "top priority among known response targets."

To briefly summarize, there has never been an environmental problem at a hardrock mine approved by a federal or state agency after 1990 that required EPA to make it a Superfund "top priority among known response targets." More specifically, no hardrock mine regulatorily-approved after 1990 has ever been placed on EPA's Superfund National Priorities List. The reason for this is simple. Current hardrock mine regulation is protecting the environment. However, this is not just the opinion of the relevant agencies or the hardrock mining industry; it is the opinion of both the National Academy of Sciences National Research Council and the bi-partisan Western Governors' Association, as discussed immediately below.

Current Hardrock Mine regulation on federal lands by the Forest Service and the BLM was determined to be "complicated, but generally effective" by the federal government's independent National Academy of Sciences National Research Council in 1999.[8] Additionally, in 2010, the bi-partisan Western Governors' Association stated that the Western States, which regulate hardrock mining on state and private lands within their borders "… uniformly impose permit conditions and stringent design and operating standards, to ensure that hardrock mining operations are conducted in a manner that is protective of human health and the environment."[9] Thus, collectively, the Forest Service, the BLM, and the Western States' reclamation agencies, in concert with the hardrock mining industry, have prevented any hardrock mine designed and approved after 1990 from being deemed by EPA to be a "top priority" cleanup site. This is a noteworthy achievement.

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discussion about the efficacy of or even enumerate the issues related to regulating hardrock mines and mills if the data includes information about mineral processing and inorganic chemical plants.

[6] Letter from Secretary of Agriculture (Forest Service response), Thomas J. Vilsack to Senator Murkowski (R-AK), July 20, 2011.

[7] Letter from BLM Director, Robert Abbey to Senator Murkowski (R-AK), June 21, 2011.

[8] *Hardrock Mining on Federal Lands,* National Research Council, National Academy Press, 1999, p. 89.

[9] Western Governors Association, Policy Resolution 10-16, Background (A)(8) (regarding "National Minerals Policy")

EPA's denial of NWMA's (and others including the State of Alaska) request for a 120 day extension of time to file comments has greatly prejudiced our ability to carefully review the assessment and supporting documents. As a result, we are effectively prevented by EPA from analyzing and commenting on each aspect of the assessment. Therefore, we are focusing the next section of these comments on some of the most egregious flaws, deficiencies and errors.

**1. The Assessment is based on a hypothetical mine that could not be permitted under existing State of Alaska and federal law requirements.**

No large scale modern mine (within the past 25 years) has been approved exactly as proposed by the company. Each of the many State and federal agencies review the permit application, baseline data and EIS requirements and each requires large or minor changes before it is satisfied that the mine will be able to operate according to that agency's requirements.

The Assessment assumes designs for various aspects of the mine and then criticizes those designs as not being acceptable. The Assessment does not effectively address avoidance, minimization and mitigation, all of which are employed by the agencies and the companies to address concerns that arise over the initial design. This approach to "assume design and then say it is not acceptable" was used in the Assessment for: siting of mine facilities, siting of roads, siting of tailings pipeline, design of bridges, tailings management, water use, water discharge, financial assurance (bonding), etc.

In no case can a programmatic EIS be used for permitting an individual mine. Every mine is required to have a site specific EIS based on the specific design details and environmental data for all aspects of the mine. Yet, the EPA Assessment uses a hypothetical design to evaluate the potential impacts on the entire Bristol Bay region, an area larger than the State of West Virginia.

As a result of the above items the EPA hypothetical Assessment cannot provide an accurate evaluation of the potential impacts of a large scale mine.

**2. The Assessment uses this hypothetical mine to represent all future large scale mining in the Bristol Bay watershed.**

The Assessment states that Pebble would be the largest mine of its type in the U.S. (which is not a true statement – the Bingham Canyon Mine has operated for more than 140 years and at some periods during its mine life has milled up to 500,000 tons per day as compared to the EPA Assessment use of 200,000 tons per day) and then utilizes the hypothetical mine focused on Pebble to represent all other large mines that could ever be developed in the Bristol Bay Watershed. This approach is blatantly wrong. If Pebble will be the largest, how can any others also be this large?

The Assessment is fatally flawed when it assumes all other large scale mines in the region will look the same as the EPA hypothetical mine. Every mineral deposit is different and must be evaluated based on its particular geology, geochemistry, metallurgy, environmental setting, etc.

The result is that every mine layout is different, every mine plan is different, every mill is different, every tailings impoundment is unique, etc.

In no case can a programmatic EIS be used for permitting an individual mine. Every mine is required to have a site specific EIS based on the specific design details and environmental data for all aspects of the mine. Yet, the EPA Assessment uses a hypothetical design to evaluate the potential impacts on the entire Bristol Bay region, an area larger than the State of West Virginia.

**3. The Assessment makes conclusions in the Executive Summary that are not supported by the body of the Assessment and in some cases contradict the information presented in the body of the Assessment.**

The Executive Summary conclusion in Table ES-1 lists the probability of problems with water collection and treatment as "High" during operation and "High" during post-closure. However, this contradicts Section 6.3.4 of the Assessment which concludes that one cannot quantify or predict risk of collection or treatment failure which is a reasonable conclusion given the uncertainties described. It reads, "The risks from water collection and treatment failures are highly uncertain…The range of failures is wide and the probability of occurrence of any of them cannot be estimated from available data." (p. 6-41). It is arbitrary and capricious for the Executive Summary to make a statement that is in direct opposition to the conclusions within the Assessment.

The Executive Summary (p. ES-21) reads "Based on a review of historical and currently operating mines, some failure of the collection and treatment systems is likely during operation of post-closure periods." It then goes on to describe toxic effects that would likely kill thousands of fish. Yet the analysis in Section 6 of the Assessment indicates that the probability "cannot be estimated form the data." The Executive Summary also summarizes the analysis by saying that EPA reviewed the data and found the probability "High." The Assessment includes no data about frequency of failure.

The Executive Summary also contradicts the Assessment analysis because there is no documentation of a "review of historical and currently operating mines" anywhere in the Assessment. Their conclusion is also contradicted by Alaska's record. There is no justification or basis given for the Summary's conclusion and it even contradicts and distorts the analysis in the body of the Assessment. It is arbitrary and capricious for the Executive Summary to make a statement that is not supported by the data and is in direct opposition to Alaska's record over the past 25 years.

**4. The Assessment purports to be an "ecological risk assessment" but admits that it does not have the necessary data to evaluate the impacts and therefore assumes what the impacts would be.**

It has been well established that an ecological risk assessment approach cannot be used to evaluate a hypothetical project or any project before there is an actual design that can be tested.

A pre-design ecological risk assessment does not have the baseline and the specific design parameters and cannot provide a meaningful analysis. A pre-design ecological assessment cannot evaluate and consider the prevention and mitigation strategies that are always part of every mine design evaluation and EIS.

**5. The Assessment purports to be a scientific assessment but admits that it does not have the baseline data or the mine design which would be required to make a scientific evaluation of a mine.**

In addition to the above comments, NWMA adopts and incorporates by reference the comments of the Alaska Miners Association, the Resource Development Council for Alaska and the Western Business Roundtable.

**Conclusion**

The federal and state regulatory agencies and the mining industry have collectively made tremendous strides in the past few decades developing environmentally sound mines based on continually improving state-of-the-art technology and best practices. Thus, it is hard to understand why EPA would seek to conduct a hardrock risk analysis without considering and allowing the application of such successful environmentally protective programs. The EPA's preemptive action and the unnecessary and premature watershed study could cripple America's crucial mining industry as uncertainty increases investment risk and dries up investment in exploration and mine development. We are deeply concerned that the approval of such a flawed report does not meet the standard of which the federal government is obligated to hold toward its constituents.

Thank you for your consideration of our comments.

Sincerely,

Laura Skaer

Laura Skaer
Executive Director

cc: Dennis McLerran
Regional Administrator